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## REMARKS

Claims 2 and 6 have been canceled. Applicant submits claims 16-24. Claims 1, 3-5, and 7-24 are now pending in the application. Applicant amends claims 4 and 9 to incorporate features that correspond to those of claim 1, amends claim 7 to incorporate features that correspond to those of claim 3, and submits claims 16-24 to round out the scope of the invention. No new matter has been added.

Claims 1 and 5 stand rejected under 35 U.S.C.§ 103(a) as unpatentable over U.S. Patent No. 5,282,250 to Dent et al. in view of U.S. Patent No. 5,544,245 to Tsubakiyama. Applicant respectfully traverses the rejection.

Tsubakiyama relates to a mutual authentication/cipher key delivery system which prevents an abuser who sets up a false base station from accessing the user via radio channel. Briefly in this system, a user provides a random number generator 1 for the mutual authentication/cipher and sends a random number rn generated by the random number generator 1 and user ID to the network. The network executes authentication processing using the random number rn and the like, and then executes encryption processing of the authentication processing using a cipher key Ki and sends an encrypted data C1 to the user. The user executes decryption processing of the encrypted data C1 using his authentication key Ki as a cipher key, then executes inverse authentication processing of the decrypted data to generate data d1, and finally compare this d1 and the random number rn and concludes that the network is authorized if agreement is obtained and it is a false if agreement is not obtained. Dent et al. also describe authentication techniques where authentication of an entity is done using a random number received from the entity.

Thus, even assuming, arguendo, that it would have been obvious to one skilled in the art

at the time the claimed invention was made to combine Dent et al. and Tsubakiyama, such a combination would have, at most, suggested authentication processing using a random number received from an entity to be authenticated. Such a combination would, therefore, still have failed to disclose or suggest,

> "[a] mobile terminal in a mobile communication system for authenticating a communicating party when communication is performed between the mobile terminal and a device on the side of a network, comprising:
>
> authentication processing means which, when a request signal requesting operation execution is received from a network device, is for executing authentication processing to check whether said request signal is a request signal from an authorized network device; and
>
> operation execution means for executing an operation that is in accordance with said request signal only if authentication that the network device is an authorized network device is obtained, wherein said authentication processing means includes:
>
> means for storing an identifier and key information of a mobile terminal;
>
> a random-number generator for generating any random number ***when said request signal is received from the network device***;
>
> an authentication operation unit for executing a prescribed authentication operation ***using said key information and random number***;
>
> an authentication request signal transmitter for creating an authentication request signal, which includes said terminal identifier and random number, and sending this signal to the network device;
>
> a receiver for receiving an authentication result, which has been obtained by an authentication operation performed on the network side, from the network device; and
>
> a comparator for comparing the authentication result computed by the mobile terminal and the authentication result sent from the network device, wherein
>
> said operation execution means executes the operation that is in accordance with said request signal upon deciding that the network device is an authorized network device when the compared results agree," as recited in claim 1. (Emphasis added)

Accordingly, Applicant respectfully submits that claim 1 is patentable over Dent et al. and Tsubakiyama, separately and in combination, for at least the foregoing reasons. Claims 5 and 16-17 incorporate features that correspond to those of claim 1 cited above, and are, therefore, together with claims 18-24 dependent from claim 17, patentable over the cited references for at least the same reasons.

Claims 4 and 8 are rejected under 35 U.S.C.§ 103(a) as unpatentable over Dent et al. in view of U.S. Patent No. 6,321,094 to Hayashi et al. Applicant traverses the rejection.

Hayashi et al. describe a base station executing the authentication of the mobile station and the base station establishing a connection to the mobile station if the mobile station is authentic. And Hayashi et al. describe the mobile station having a random number generator. But this random number generator is used to encrypt a predetermined part of the transmission data and to decrypt received data.

Thus, the addition of Hayashi et al. would still have failed to cure the above-described deficiencies of Dent et al. and Tsubakiyama with respect to claims 1 and 5. Claim 8 depends from claim 5 and claim 4 incorporates features that correspond those of claim 1 cited above. Accordingly, Applicant respectfully submits that claims 4 and 8 are patentable over the cited references for at least the foregoing reasons.

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Dent et al. in view of U.S. Patent No. 5,737,701 to Rosenthal et al.; and claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Dent et al. in view of U.S. Patent Application Publication No. 2002/0057678 to Jiang et al. Applicant respectfully traverses the rejections.

Neither Rosenthal et al. nor Jiang et al. describe an authentication necessity table provided in the mobile terminal which indicates whether each request received from the network

device requires authentication. Accordingly, Applicant respectfully submits that claims 3 and 7 are patentable over the cited references for at least this reason. Claims 16-17 incorporate features that correspond to those of claims 3 and 7, and are, therefore, together with claims 18-24 dependent from claim 17, patentable over the cited references for at least the same reasons.

Claims 9-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dent et al. in view of U.S. Patent Application Publication No. 2004/0087318 to Lipovski ; claims 12, 14 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dent et al. in view of U.S. Patent Application Publication No. 2003/0122707 to Durst et al.; and claim 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dent et al. in view of U.S. Patent No. 5,915,225 to Mills.

The Examiner relied upon the Lipovski, Durst et al., and Mills as combining references to specifically address the additional features recited in claims 9-15, which incorporate features that correspond to those of claim 5 discussed above. As such, these references would have failed to cure the above-described deficiencies of Dent et al. even assuming, arguendo, that it would have been obvious to combine them. Accordingly, Applicant respectfully submits that claim 9, together with claims 10-15 dependent from claim 5, is patentable over the cited references for at least the above-stated reasons.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

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